Question Paper and Answer Keys for the post of Surveyor

Written Recruitment Examination for filling up of the post of Surveyor in APWD was held on 19/02/2023 from 2.30 pm to 4.30 pm at Port Blair. The Question Paper and the Answer Keys of the written examination received from the agency engaged for conduct of examination is hereby published. The candidates may submit their claims & objections if any, through email to ceapwd.recruitment@gmail.com on or before 6th March, 2023 at 5.00 pm.

No claims & objections will be entertained beyond the date & time mentioned above.

Date of Exam: 19.02.2023

ANSWER KEY FOR SURVEYOR

Q.No	Key	Q.No	Key		Q.No	Key	Q.No	Key
1	A	26	В		51	C	76	D
2	В	27	D		52	В	77	A
3	A	28	В		53	A	78	С
4	D	29	Ď		54	В	79	D
5	A	30	А		55	Ċ	80	В
6	D	31	D		56	D	81	D
7	D	32	В		57	C	82	D
8	В	33	D		58	В	83	D
9	С	34	D		59	C	84	A
10	A	35	A		60	A	85	В
11	С	36	D		61	В	86	A
12	A	37	В		62	A	87	В
13	D	38	В		63	C	88	Ď
14	D	39	D		64	В	89	В
15	Č	40	Ċ		65	С	90	A
16	A	41	В		66	В	91	A
17	В	42	В		67	A	92	В
18	A	43	В		68	В	93	A
19	С	44	В		69	В	94	C
20	A	45	A		70	A	95	В
21	В	46	A		71	A	96	В
22	В	47	C		72	D	97	В
23	A	48	В		73	A	98	A
24	. C	49	В		74	В	99	C
25	À	50	В	[75	A	100	C

A	II question is carrying equal marks. Or	ily one answer is correct. Time	e: 2.:	0 hours
1.	Determining the relative positions of poby means of direct or indirect measurer			
í	called as			()
	a) Surveying	b) Levelling		
	c) Measuring	d) Contouring		
2.	In which surveying, shape of earth is ta		€)
	a) Plane surveying	b) Geodic surveying		
	c) Topographic surveying	d) Geological surveying		
3.	The ratio of map distance to correspond		()
	· *	b) Representation factor		
	· · · · · · · · · · · · · · · · · · ·	d) Recurring factor		
4.	Which among the following is one of the		()
	a) Taking measurements	b) Covering entire area		
	c) Determining the elevation differences			
5.	The formula for shrunk scale can be giv		(Ì
	a) Original scale*shrinking factor			
7	c) Vernier scale* shrinking factor	d) Diagonal scale* shrinking factor		
6.	Which of the following is made in conn	ection with the construction of streets	, wa	ter
	supply systems, sewers?		€)
	a) Traverse surveying	b) Hydrographic surveying		
	c) Cadastral surveying	d) City surveying		
7.	Most accurate method of direct measuri	ng is with	()
	a) Passometer	b) Pedometer		
	c) Theodolite	d) Chaining		
8.	What is used for measuring offsets, but architects?	it is often used by building surveyors	or	
	a) Plum bob	b) Butt rod	()
	c) Pegs	d) Laths		
9.		•	()
,	a) 15m	b) 120m		
	c) 20m	d) 25m		
10	Tallies are fixed at every metre		()
	a) l	b) 2		
	c) 2.5	d) 0.5		
11	Length of Gunter's chain is		()
, , ,	a) 10ft	b) 33ft	•	•
	c) 66ft	d) 100ft		
y /3	What is the length of Ranging rod comm	*	()
14.		b) 3 m	•	•
	a) 2 m	d) 5 m		
	c) 4 m	mry = max		

13. Which of the following are not sources	of errors?	()	
a) Instrumental	b) Personal			
c) Natural	d) Artificial			
14. Which of the following is the sighting d	evice?	()	
a) Compass	b) Spirit level			
c) Plumbing fork	d) Alidade			
15. What instrument is used for centering the	ne table?	()	
a) Compass	b) Spirit level			
c) Phumbing fork	d) Alidade			
16. What is the size of a field book?		()	
a) 20 cm x 20 cm	b) 25 cm x 20 cm			
c) 20 cm x 25 cm	d) 25 cm x 25 cm			
17. Identity the following symbol.		()	5
\$ 1 8 1 8 5 8 5 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8				

a) Well	b) Earthwork dam			
rollin washman II for	d) Statue			
18. Which branch of surveying is used to fi	nd the elevations of given points wit	h resp	ect to	
given or assumed datum?		•)	
a) Levelling	b) Contouring			
c) Traversing	d) Plane table surveying	,		
19. Turning point is also called		Ę)	
a) intermediate point	b) level point			
c) change point	d) end point	,		
20. Which of the following is a personal en	ror?	{)	
a) mistakes in manipulation	b) atmospheric rein	cuon		,
c) settlement of tripod or turning points	d) wind vibrations		,	
21. The formula for calculating R.L can be	given as	()	
a) H.I+F.S	b) H.I-1'.5			
c) H.I-B.S	d) H.I+B.S		e (ì
22. Two contour lines of different elevation	is unite to form one line only in the	ase o.	۶۲)
a) Hills	b) Vertical cilli			
c) Horizontal cliff	d) Overhanging Cliff	()	
23. Which the following is not a use of con	tom maba;	(,	
a) Drawing of plan				
b) Determination of intervisibility betw	cen two points			
c) Tracing of contour gradient and local	tion of route			
d) Calculation of reservoir capacity	and the state of her	i zvonsta	d and	
24 is the most precise instrument of	lesigned for the measurement of that	120,755443 ()	•
vertical angles.		(,	
a) Survey chain	b) Dumpy level			
c) Theodolite	d) Telescope	(} .	
25. How many types do theodolites classifi	e07	٩	,	
a) 2	0) 3			
c) 4	d) 5			

:				
	6			
	26. The plate level can be centered with	the help of	()
	a) Focusing screw	b) Foot screw	`	,
	c) Tangent screw	d) Clip screw		
	27. The value of multiplying constant is		{)
	a) 60	ъ) 80		,
	c) 90	d) 100		
	28. The sum of interior angles must be a	equal to	(}
	a) (2N+4) right angles	b) (2N-4) right angles		
	c) (2N+4) * 180	d) (2N-4) * 180		
	29. Departure can be given as		()
	a) D = i cos θ	b) D = 1 tan 0		·
	c) $D = 1 \operatorname{cosec} \theta$	d) $D = l \sin \theta$		
	30. Which among the processes having a	nore accuracy in its output?	É)
	a) Total station	b) Plane table surveying		
	c) Chain surveying	d) Compass surveying		
	31. Possibility of error in plane table sur	voying is	()
	a) Negligible	b) Zero		
	c) More	d) Less		
	32. Dumpy level is used for		{)
	a) Finding point to point distance	b) Finding the elevation difference	o e	
	 c) Finding the traverse area 	d) Finding the perimeter of		
	33. In which direction it is best to place t	he total station for obtaining the best	output?	(
	a) East	b) West		
	c) South .	d) North		
	34. The data obtained from total station of	an be used in which among the follow	/	,
	software directly?	ቴ ነ መዝንቁካ ል - ል በነኳ ሂ ላይቸው ለጣዬ	ŧ)
	a) Primavera	b) STAAD PRO		
	c) Autodesk Revit	d) Surfer	innala?	(
	35. Which among the following is used in	b) Meridian	migic:	į
	a) Zenith	d) Azimuth		
	c) Horizon		()
	36. The velocity of sound in sea can be d	b) Reflection	ξ.	,
	a) Refraction	d) Sounding machine		
	c) Polarization	a) positions morning	()
	37. Rain gauge is used for	b) Measuring precipitation	(,
	a) Hydrological survey	d) River survey		
	c) Marine survey		ſ)
	38. Rain gauge is expressed in terms of	b) Meters	į	3
	a) Decimeters	d) Millimeters		
	c) Centimeters		()
	39. Which of the following devices can be	b) GPS	•	/
	a) RS	d) RMS digital multi-meter		
	c) GIS	TANKER TANKER ENOUGH TO THE TANKER		

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	a de la minima de contra	when the	olan
Which among the following scale	es is used to determine the original scale	() . b
on the drawing sheet shrinks due	to atmospheric conoravis:	٧,	,
a) Vernier scale	b) Plane scare		
c) Shrunk scale	d) Diagonal scale	6)
11. Chains are made up of		(,
a) High steel carbon	b) Galvanized mild steel		
c) Copper coated iron	d) Iron		,
42. The letter 'm' marked on the tall	es refers to	()
a) Meter	b) Metric chain		
n) Non Metric chain	d) Mild steel	s*·	ν.
43. One furlong is equal to	Gunter's chains.	()
a) 1	b) 10		
c) 66	d) 80		
44. How many number of links are t	bere in engineer's chain?	{)
	b) 100		
a) 10	d) 66		
c) 50 45. Diameter of ring of arrow is		(}
	b) 25 mm		
a) 50 mm	d) 25 mm		
 c) 30 mm 46. How many numbers of arrows at 	e required for chain surveying?	(}
	b) 5		
a) 10	d) 20		
c) 15		()
47. Marking the survey stations in se	b) Spikes		
a) Nails	d) Butt rods		
c) Wooden pegs		veslth? (ĺ
48. Which of the following type or s	surveying is used for exploring mineral v b) Mine surveying		-
a) Military surveying	d) Engineering surveying		
c) Topographic surveying	d) Ruffingering acraeduse	()
	Color with payable to		
3 ·	elevations of given points with respect to		
the relative	positions of the objects on the surface of	the eartr	3.
a) Curveying is to find the cleva	tion of points having the same contour it	iterval	
and the state of the second second			
co miliab a fish o following stocsn't	describe the use of hydrographic survey	ing? ()
a) Nautical charts for navigation	DIESMONDINE MOON OUR TO WE		
A L'onmant	d) Making underground investi	gations	
c) Laying an Alignment	surveying can be employed in a magneti	c area?	(
51. Which of the following type of	b) Traverse surveying		
a) Compass surveying	d) Theodolite surveying		
c) Plane table surveying	ed or well-shaped triangle, no angle sho	uld be	
52. In case, to get a weit-proportion	PO As as war asserting to source the same	()
less than	b) 30°	•	
a) 15°	d) 25°		
c) 45°	LE 3 Km J		

53	The simplest instrument used for setting		()	
	a) Cross staff	b) Optical square			
6	c) Prism square	d) Site square			
54.	What are used to mark the positions of		ey lir	ю" ()
	a) Arrows	b) Pegs			
	c) Ranging rods	d) Plumb bob			
55.	Which of the following is the superior to	table?	()	
	a) Traverse table	b) Johnson table			
	c) Coast survey table	d) Plane table			
56.	What is the last step in chain surveying	?	()	
	a) Reconnaissance	b) Marking			
	c) Fixing	d) Running survey lines			
57.	The book in which the chain or tape me	easurements are entered is called the		()
	a) Assistant book	b) Surveyor book			
	c) Field book	d) Survey book			
58.	Whenever possible, a survey station mu	ist be fixed with reference to a minimu			
á	number of permanent objects.		()	
	a) l	b) 2			
	c) 3	d) 4			
59.	Identity the following symbol.		()	
	a) Temple	b) Church			
	c) Police station	d) Statue			
60.	Which line passes through true north an	d true south?	()	
	a) True Meridian	b) Magnetic Meridian			
	c) Arbitrary Meridian	d) Dip			
61.	Convert 22°30' whole circle bearings to	quadrant bearings?	()	
	a) 180 - 22°30	b) 22°30			
	c) 360 – 22°30	d) 270 – 22°30			
62.	Convert 122°30' whole circle bearings t	o quadrant bearings?	(ď	
	a) 180 - 122°30	b) 122°30			
	c) 360 - 122°30	d) 270 - 122°30			
	Horizontal axis is also called		()	
	a) Inner axis	b) Outer axis			
	c) Trunnion axis	d) Line of sight			
64.	To measure the horizontal angle which		()	
	a) Releasing all clamps	b) Levelling instrument			
	c) Turning plates	d) Clamping the plates			
65	If one of the vernier is at 0° then anothe	r vernier reading shows / also shows _	_{()	
	a) 90°	b) 0°			
	c) 180°	d) 45°			
	*				

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66. In which of the following transverse method angles are measured by theodolite? (b) By direct observation of angles a) By fast needle c) By locating details with transit and tape d) By free needle 67. Stadia method can also be known as _ b) Movable hair method a) Fixed hair method d) Tangential method c) Subtense method 68. From the figure, the R.L. of B can be b) R.L = R.L of B.M + H.I + V - Xa) R.L of B = R.L of B.M + H.I + X + Vd) R.L = R.L of B.M + V + Xc) R.L = R.L of B.M + V - X) 69. From the figure, determine R.L of Q from A? Ħí ŔŔ.Z b) R.L = R.L of A + s + HIa) R.L = R.L of A + h + H2d) R.L = R.L of B + HI + hc) R.L = R.L of A + s + H2) 70. Which of the following can give the best output? € b) Intersection a) Traversing d) Radiation c) Resection 71. Which among the following methods of plane table is most commonly used? (b) Resection a) Intersection d) Radiation c) Traversing 72. Which among the following is more accurate in its output? } b) Resection method a) Absolute positioning d) Conventional GPS method

c) Modern GPS surveying

73. The process of	measuring depth belo	ow the water surface is called	()
a) Sounding		b) Chaining		·
c) Traversing		d) Compass traversing		
74. What is length	of the sounding rod o	or pole?	()
a) 7-8 m		b) 5-8 m	Ì	-
c) 10-18 m		d) 15-18 m		
75. Which of the fo	ollowing is not used in	n the tracking system?	()
a) Multiple free	j uency	b) Dual frequency		•
c) Single freque	ency	d) Military navigation		
76. Which of the fo	ollowing indicates the	objective of road survey?	(}
 a) Specific grav 	rity	b) Density		
c) Pavement de	sign	d) Detailed layout of re	ad way	
77. Township surve	ey is also known as		()
 a) Congressiona 		b) Harbor surve	У	
c) Land survey		d) Airport survey		
78. Levelling deals	with measurements is	n a	()
a) Horizontal pl	ane	b) Inclined plane		
c) Vertical plan-	e	d) Both vertical and hor	izontal pl	lane
79. Which of the fo	llowing is not a meth	od of levelling?	()
a) Barometric le	:ve!ling	b) Trigonometric levell	ing	
'c) Spirit levellin	ıg	d) Traverse leveling		
80. Direct ranging is	s done when the two	ends of the survey lines are	_ ()
a) Invisible		b) Intervisible		
c) Visible from	a particular point	d) Faraway from each o	ther	
81. AGMSY, CIOU	A, EKQWC, 7, IOU	AG, KQWCI	()
(A) FMYES	(B) FMSYE	(C) GNSYD (D) GMS	FYE	
	² . Q is the granddaugl	hter of O, who is the husband of P.	How is M	l related
to O?			()
(A) Father	(B) Daughter	(C) Mother (D) Son		
		ion', '+' means 'subtraction' and '+' n ng equations is correct?	neans ()
(A) 16 × 5 ÷ 10 ÷ 4 -		16 - 5 × 10 ÷ 4 + 3 == 12	`	,
(C) $16 + 5 + 10 \times 4 =$	` '	16+5-10×4+3=9		
	• /	10 t 2 z 10 z 4 z 2 m 3	r	,
84. Writer: Pen ::?		. 200 h 1 11 200 20 1 20	()
(A) Painter (B) A	rtist:: Tailor Brush	(C) Needle (D) Teacher: Ca	nvas ; Cla	iss

85. Statement- '	Buy pure a	nd natural Oil c	of compa	ny HOL" – A	in ad, in a new	spaper	
Assumptions-	I. People	io not mind pay	ying mor	e for pure an	d natural oil.	()
	II. Artificia	al oil can be pro	epared.				
A. If only assun	aption I is Ir	nplicit					
B. If only assun	ption II is I	mplicit					
C. If either I or	lt is Implici	ţ					
D. If neither I n	or II is Impl	icit					
E. If both I and	II are implic	:it					
86. Which of th	e following	is the branch o	f Artifici	al Intelligenc	e?	() :
a) Machine Lea				er forensics			
e) Full-Stack De	eveloper		d) Net	work Design			
87. Public heal		n sufficient an	ounts of	good quality	safe drir	iking_	and)
(A) Water, food	and shelter		(B) Fo	od, Water an	d Shelter		
(C) Shelter, foo	d and water		(D) W	ater, shelter a	and food		
88. Which of the	e following	machine requir	es input	from the hun	ans but can in	terpret (the
a) Actuators	b) Se	nsor	c) Age	ents d) A	A system		:
89. Statements: s purse. Which			mobile a	re phones. So	ome mobile are	rings. (No ring
(a) Some purse	is ring.		(b). So	ome phones a	re purse		
(c) Ne mobile is	ring		(d) All	rings are me	obile.		
90. A man starts and turns right a and continues w	dter reachin	g the centre of	the plot.	After some o	left corner of a	a squar un turr (.	e plot is right)
(a) South		(b) West		(c) East	(d)	North	
)1 . Agnimitra v	vas the hero	of Kalidasa's p	play			()
	imitram		(B) M	ega Dhutam			F
A) Malavikagn		78% 2	akunthal	am			
A) Malavikagn C) Raghu vams	am	(13) 5	ear.mimis	20KXE			
		•	ran.uuuuu	1.6 ¢ A £		()

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93. The indus V	93. The Indus Valley, civilization had overseas trade contacts with						
(A) China	(B) Spair	1	(C) Egypt	(D) Russia			
94. Which of the a) analog	o following type b) digital		is mostly used for c) hybrid	r automatic opera d) remote	tions'	?	
95. Which of the a) AN		ne first neural NARC	network computer c) RFD	r? d) AM	()	
96. Which of the and retrieving th a) Graphics pack c) Spreadsheet p	eir personal int tage	formation? b) Perso	ndividuals to use p onal assistance pac d) Animation paci	ckage	rs for (storin;	
97. From the give	ven alternative en word: CHR(words, select ONOLOGICA	the word which ca L	annot be formed	asing (the)	
a. CALL			b. ANALOGY				
c. CALICO		;	d. LOGIC				
98. As per 'Augi	ust Offer 1940'	the Constitut	iou of India would	l be drawn by	()	
A. Indians			B. House of Lords				
C. Princely State	S		D. House of Conu	mons			
99. Square root c	of 0.9 is				()	
A) 0.0300			B) 0.3300				
C) 0.948		:	D) 0.8123				
, 100. Logarithmic	value of 1000	is			()	
A) 1.000	В	3.000					
) 4.000					

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